

Abstract of the Disclosure

An apparatus for detecting the signals of transmission diversity based on space-time coding, comprises a plurality of correlators for subjecting received signals to reverse diversification with the same diversity code as used in the transmission side to obtain the transmission symbols decoded, a plurality of channel determiners for obtaining the channel estimates of the slots according to the transmission symbols of the pilot symbol intervals from the correlators to determine the average channel estimate of each symbol through linear interpolation and filtering of the channel estimates, a plurality of space-time decoders for decoding the transmission symbols of the data symbol intervals received from the correlators based on the channel estimates of the channel determiners to detect the data symbols, a plurality of output control devices for comparing the average signal and interference of each slot of the received signals with the threshold value to control the output of the data symbol detected by the space-time decoders, and a combiner for linearly combining the detected signals of the space-time decoders multiplied by the control signals of the output control devices.